

# TCDSB K to 12 Professional Learning Form 2016-2017



<b>SCHOOL - Prin - Sup</b>	Immaculate Conception, Macchia, Area 3
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## BACKGROUND – DATA ANALYSIS

Student Achievement Data (EQAO, CAT4, etc.)	Perceptual Data (Survey data, School Climate, etc.)	Demographic Data (N tiles, etc)	Program Data (Empower, 5 <sup>th</sup> Block, Taking Stock, SSI, etc.)	Other (SSLN, EDI, etc.)
<p>EQAO 2014-2015 EQAO Primary 46 Students 4 ELL 14 IEPs Current Grade 5's R-59% -4% W-63% -9% M-43% -9%</p> <p>EQAO Junior 34 Students (1 exemption, 1 no data in math ) 5 ELL 9 IEPs Current Grade 8's R-59% -4% W-71% +8% M-38% -17%</p> <p>CAT4 2015-2016 Current Grade 3's % at Stanine 4 and Above R-92% WA-79% V-88% L/WC-87% S-81% M-96% C-96%</p> <p>Current Grade 6's % at Stanine 4 and Above R-57% WA-43% V-63% S-66%</p>	<p>EQAO 2014-2015 Mathematics Perceptual Data Primary Current Grade 5's Student Engagement I like mathematics most of the time: 52%</p> <p>I am good at mathematics most of the time: 52%</p> <p>I am able to answer difficult mathematics questions most of the time: 41%</p> <p>I do my best when I do mathematics activities in class most of the time: 70%</p> <p>Cognitive Strategies Used in Mathematics I read over the problem first most of the time: 59%</p> <p>I think about the steps most of the time: 48%</p> <p>Parental Engagement We talk about mathematics work I</p>	<p>Enrolment: 453 (Oct 2015) Number of IEPs: 64 Number of Gifted Students: 2 Number of ELLs: 39 Born outside of Canada: 18.5 % Second language at home: 40.0%</p>	N/A	<p>EDI 2014-2015 Current Grade 2's Percentage of children with scores above 25th percentile (on track): Physical Health &amp; Well-Being: 88.5% Social Competence: 84.6% Emotional Maturity: 73.1% Language &amp; Cognitive Development: 76.9% Communication Skills and General Knowledge: 78.8%</p> <p>- SSLN area focus on mathematics</p>

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<p>M-66% C-66%</p>	<p>do in school most everyday or almost everyday: 46%</p> <p>EQAO 2014-2015 Mathematics Perceptual Data Junior Current Grade 8's Student Engagement I like mathematics most of the time: 47%</p> <p>I am good at mathematics most of the time: 40%</p> <p>I am able to answer difficult mathematics questions most of the time: 30%</p> <p>I do my best when I do mathematics activities in class most of the time: 63%</p> <p>Cognitive Strategies Used in Mathematics I read over the problem first most of the time: 60%</p> <p>I think about the steps most of the time: 43%</p> <p>Parental Engagement We talk about mathematics work I do in school most everyday or almost everyday: 50%</p>			
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	SCCSC 2015-2016 Current Grade 7's, 9's Born in Canada: 66% Both parents born in Canada: 12.4% Only or mostly English at home: 43.3% Love/like school: 75.2% Very important/important to do well in school: 96.9%			
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<b>URGENT CRITICAL LEARNING NEED</b> Explain in 140 characters or less ... student learning problems we need to solve - Professional learning focus for this year.	Mathematics- Mental Math, multi-step problem solving, math language(instructions, terms), and nurturing a love of mathematics.
From the data, what learning conditions will support increased achievement?	<ul style="list-style-type: none"> <li>- focus on Balanced Mathematics instruction by using Nelson Math and high-yield strategies</li> <li>- implement Renewed Math Strategy by accessing 14 Math Strategy Professional Learning code days to support teacher professional development &amp; Math Lead Teachers 5 code days (2 math lead teachers at Immaculate Conception)</li> <li>-Math Coach to support intermediate division.</li> <li>- differentiated instruction embedding modelling, group work and gradual release</li> <li>- increase focus on mastery of basic number sense and numeration to ensure a successful foundation for critical thinking and problem solving</li> <li>- inservices for teachers new to a grade/division</li> <li>- alignment of learning goals and success criteria with timely descriptive feedback</li> <li>- modelling of growth mindset in the area of mathematics</li> </ul>

## PROFESSIONAL LEARNING PLAN TO MEET URGENT CRITICAL NEED:

Collaborative Inquiry Question (What is the problem of practice?)	<b>How can we nurture a love of learning Mathematics and intentionally teach students mental math strategies and math vocabulary which they can apply to solving problems?</b>
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<p>If... Then... Statement:</p>	<p>If we encourage and engage students in direct instruction and modelling of mental math strategies and vocabulary on a daily basis, then students will enhance their problem solving skills.</p> <p>If we directly model metacognition strategies then student will experience greater success with open-ended responses in the area of mathematics.</p>
<p>Learning Goals (related to urgent critical learning need)</p>	<ul style="list-style-type: none"> <li>- implement the Balanced Mathematics Instruction model and Renewed Math Strategy to foster mastery of basic skills to support real world problem solving and critical thinking</li> <li>- daily use of mental math strategies</li> <li>- to provide opportunities for co-operative learning based on real world problem solving</li> <li>- to increase student engagement through use of mental math strategies</li> <li>- to model a variety of approaches and growth mindset to solving problems utilizing mental math strategies</li> <li>- to provide co-created success criteria and ongoing descriptive feedback to help students meet their problem solving goals</li> </ul>
<p>Marker students who will receive intervention (subgroups e.g., achieving at 2.5-2.9, Applied, gender, Grade(s), etc)</p>	<p>Each classroom teacher has completed marker student lists that include information regarding student learning profiles and strategies used to support student needs. The lists will be updated in January and in June. The following lists are available for mathematics:</p> <p>Students to Move 2.7-2.9          Students to Watch 3.0-3.2          Students Below 2.7</p>
<p>Actions/Interactions (What will we do to meet our goals?)</p>	<ul style="list-style-type: none"> <li>- support for direct teaching of basic number and numeracy, and mental math skills</li> <li>- model and apply mental math strategies to be used on a daily basis throughout the grades</li> <li>- model and apply growth mindset techniques</li> <li>- daily use of Math World Walls to support math vocabulary acquisition</li> <li>- teacher collaboration to identify mental math strategies, pre and post assessments to discuss best practices</li> <li>- provide access to technology and manipulatives to support student learning and explicit teaching of strategies</li> <li>- use of real world problems link to student voice and student interest</li> <li>- provide timely and effective descriptive feedback for students to monitor their success and learning</li> <li>- provide direct instruction in small groups</li> <li>- engage in co-created success criteria with students cross-curricular</li> <li>- provide timely, descriptive feedback for students to monitor their success and learning</li> <li>- implementation of differentiated instruction to support all students</li> </ul>
<p>Strategies to address the needs of students who have an IEP or are ELL</p>	<ul style="list-style-type: none"> <li>- formative and summative assessments: assessments for, as and of learning</li> <li>- align curriculum expectations to IEP/ELL program</li> <li>- consistent use of learning goals, co-constructed success criteria, timely descriptive feedback</li> <li>- consistent use of manipulatives and technology, differentiated instruction</li> </ul>

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	<ul style="list-style-type: none"> <li>- consistent implementation of accommodations and modifications as outlined in IEP/ELL program</li> </ul>
<p>PD Required for Staff</p>	<ul style="list-style-type: none"> <li>- Math Lead code days, 5 days each</li> <li>- Renewed Math Strategy 14 code days to support implementation of Balanced Mathematics Instruction Model and Renewed Math Strategy, learning goals, co-constructed success criteria, descriptive feedback, mental math</li> <li>- PD sessions with Math Coach to support use of manipulatives (intermediates) and technology</li> <li>- inservices for teachers new to division</li> <li>- staff meeting allocation of time for math focus</li> <li>- use of effective formative and summative assessments, self/peer assessments to guide instruction</li> <li>- co-plan lessons, share best practices and descriptive feedback strategies used in problem solving lessons</li> <li>- collect, document, track and provide evidence of successful strategies and impact on student work</li> <li>- integration of 21st century learning fluencies across curriculum</li> </ul>
<p>Measures/Evidence of Success to be used</p>	<ul style="list-style-type: none"> <li>- student tracking using Students to Move, Watch and Below lists</li> <li>- analysis of student work at various points during learning process with grade partners</li> <li>- student surveys to track student engagement and achievement</li> <li>- pre and post assessments of key assessment questions and end of chapter assessment task</li> <li>- EQAO, CAT/4, Report Card data</li> <li>- observations and anecdotal documentation</li> </ul>
<p>Resources Required (human, material, #code days)</p>	<ul style="list-style-type: none"> <li>- Math Word Walls</li> <li>- Jump Math to support Balanced Math Instruction model</li> <li>- Prime Math</li> <li>- Use of Prodigy</li> <li>- Think, Pair, Share</li> <li>- manipulatives, calculators</li> <li>- code days as indicated in PD required for staff</li> <li>- Math resources from LNS: monographs, videos</li> <li>- consultation with Math Resource Teacher</li> <li>- Growth Mindset resources</li> </ul>